ICA50505 Diploma of Information Technology (Database Design and Development)

Release: 1

ICA50505 Diploma of Information Technology (Database Design and Development)

Modification History

Not Applicable

Innovation and Business Skills Australia

Description

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This qualification provides the skills and knowledge for an individual to be competent in the effective design and development of ICT database systems. Graduates will have detailed knowledge of the technical intricacies of database development and design, but will also be well-rounded in a range of other competencies such as process re-engineering, QA, business needs analysis and client expectations.

Job Roles

Appropriate database design with relevance to the organisation's objectives can provide rapid access to information, achieve client satisfaction and provides an ability to change to meet new demands on the organisation. The integration of databases with web connectivity is of fundamental importance to e-commerce transactions.

Possible job titles include:

- Business Intelligence/Data Warehousing Consultants
- Coldfusion Developer
- CRM Database Designer
- Data Warehouse Trainer
- Data Warehousing and Business Intelligence Manager
- Database Designer
- Database Developer
- Database Specialist
- Developer
- Senior Database Administrator
- Senior Project manager - Data Warehousing CRM

Prerequisite Requirements

A number of units within this qualification have prerequisites. These are detailed as follows:

Code and Title	Prerequisite units required
ICAA5151B Gather data to identify business requirements	ICAA4041C Determine and confirm client business expectations and needs ICAA4233B Determine and apply appropriate development methodologies
ICAA5158B Translate business needs into technical requirements	ICAA4233B Determine and apply appropriate development methodologies
ICAP5039B Match IT needs with the strategic direction of the enterprise	ICAA4041C Determine and confirm client business expectations and needs

Pathways Information

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

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The following units contain the basic fundamentals of ICT knowledge and skills for all qualifications at Certificate III in IT and above. These units or demonstrated equivalence are required for entry into this qualification:

BSBCMN106A   Follow workplace safety procedures
ICAD2012B   Design organisational documents using computing packages
ICAU1128B   Operate a personal computer
ICAU2005B   Operate computer hardware
ICAU2006B   Operate computing packages
ICAU2013B   Integrate commercial computing packages
ICAU2231B   Use computer operating system
ICAW2001B   Work effectively in an IT environment
ICAW2002B   Communicate in the workplace

Employability Skills Summary

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ICA50505 Diploma of Information Technology (**Database Design and Development**)

The following table contains a summary of the Employability Skills required for a Database Designer/Developer. The Employability Skills facets described here are broad industry requirements that may vary depending on qualification packaging options.

Employability Skill	Industry requirements for this qualification include:
Communication	• communicating clear concepts and solutions to complex issues in an unambiguous manner to colleagues and clients • using plain English literacy and communication skills in relation to analysis, evaluation and presentation of information, for example when developing polices and procedures • using report writing skills for business, requiring depth in some areas, and analysis and evaluation of information, for example when developing supporting documentation regarding maintenance issues
Teamwork	• coordinating groups and teams • liaising with relevant personnel to obtain approval for plans • participating in teams concerned with planning and evaluation functions
Problem Solving	• analysing and planning approaches to technical problems or management requirements • identifying bottlenecks, overlooked functionalities and other issues and resolving them with client input

Employability Skill	Industry requirements for this qualification include:
Initiative and Enterprise	• transferring and applying theoretical concepts and/or technical or creative skills to a range of situations
Planning and Organising	• developing plans, with prioritised tasks and contingency arrangements, for the implementation of the database design • using project planning skills in relation to scope, time, cost, quality, communications and risk management for example, when reviewing user requirements
Self-management	• taking personal responsibility and autonomy in performing complex technical operations or organising others
Learning	• developing detailed knowledge of current industry accepted design methodologies and prototyping tools
Technology	• identifying technology needs, sourcing, purchasing, installing, configuring and testing database components including software and hardware • using rapid application development tools

Packaging Rules

Qualification Structure

To attain ICA50505 Diploma of Information Technology (Database Design and Development) 19 units must be achieved:

• 15 core units; plus
• 4 elective units

Achieve 15 Core Units
Core
BSBPMG505A   Manage project quality
ICAA5046B   Model preferred system solutions
ICAA5050B   Develop detailed component specifications from project specifications
ICAA5054C   Validate quality and completeness of system design specifications
ICAA5056B   Prepare disaster recovery and contingency plans
ICAA5139B   Design a database
ICAA5151B   Gather data to identify business requirements
ICAA5153B   Model data objects
ICAA5154B   Model data processes
ICAA5158B   Translate business needs into technical requirements
ICAB5068B   Build using rapid application development
ICAP5039B   Match IT needs with the strategic direction of the enterprise
ICAS5102B   Establish and maintain client user liaison
ICAS5202B   Ensure privacy for users
PSPPM502B   Manage complex projects

Achieve 4 Elective Units Chosen from the Following Sources (Listed in Recommended Order)

- *Information Technology and Communications Training Package ICA05* at Diploma or Advanced Diploma (up to 2 units can be selected at Certificate IV); and/or
- preferred Training Packages at Diploma or Advanced Diploma (ICT02 Telecommunications; BSB07 Business Services; CUF07 Screen and Media; ICP05 Printing and Graphic Arts); and/or
- any other Training Package (to maximum of 2 unit) at Diploma or Advanced Diploma based on documented industry or enterprise needs
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